

REMARKS

Claims 13-17, 21, 25-29, and 33-37 are now pending. Claim 33 has been amended to recite a particular sequence of cationic and non-cationic substituents and to specify that these substituents are cationic or non-cationic at a physiologically relevant pH. Support for this amendment can be found in Figure 3 and in the original claim 28.

The Examiner has required a species election in connection with the pending claims 13-17, 21, 25-29, and 33-37. Specifically, the Examiner has required the identification of a core or motif sequence of the generic formula I of claim 13 and the recitation of specific non-cationic moieties and specific lengths of peptide sequence in the generic formula II of claim 33.

Applicants appreciate the courtesy of the telephone interviews extended by the Examiner to Applicants' undersigned representative James E. Austin on September 29, 2006 and October 13, 2006. During the telephone interview of October 13, 2006, the Applicants suggested an election to a species presented in Figure 3 of the application. The Examiner indicated that the species presented in Figure 3 is acceptable to satisfy the election of species requirement.

The Applicants herein confirm the election of species presented in Figure 3 of the application. It should be realized that the species presented in Figure 3 is a simplified example of a combinatorial library suitable for identification of transfecting agents. The library presented in Figure 3 allows evaluation of only 64 combinations (compounds). Typically, combinatorial libraries tailored for lead generation contain a much larger number of combinatorially synthesized compounds. Such libraries may contain thousands or even millions of diverse compounds. While these compounds are typically within the scope of one generic formula, the structural diversity within the scope of this formula should be maximized. Such structural diversity is beneficial for lead generation, since it allows identification of active compounds that cannot be identified by rational design methods or by screening of smaller libraries.

The claimed invention provides a method for discovering transfecting agents by screening a population of peptoids with generic formulas I and II. It is important to realize that within the scope of formulas I and II, a broad (for example, the maximum possible) structural diversity of species should be created in the population of peptoids to be screened. Such a diverse population may be created by, for example, mix-and-split protocol, resulting in an expansive library of compounds with unknown structure falling within the scope of formulas I

and II Such an expansive library is especially suitable for discovery of so called “undesigned effects” that cannot be discovered by rational design methods.

As explained above, the elected species is a very simple illustration of a combinatorial library, which is suitable for facilitating the search process conducted by the Examiner. In general, however, it is contrary to the point of the invention to restrict the diversity of a combinatorial library to one or several species with narrowly specified moieties and length.

The species presented in Figure 3 falls within the scope of both formula I of claim 13 and formula II of claim 33.

With reference to formula I, the elected species has the following features:

R^a is a lipid moiety connected to a linker moiety;

R^b is selected from the group consisting of alkyl, and aralkyl, wherein alkyls are substituted with amino and guanidino groups and aralkyl is substituted with an alkoxy group;

R¹ and R² are hydrogen atoms;

R^c is NH₂ group; and

m = 9.

With reference to formula II, the elected species has the following features:

R^a is a lipid moiety connected to a linker moiety;

R^{b1} is an amino substituted alkyl or guanidino substituted alkyl (cationic moieties);

R^{b2} and R^{b3} are alkoxy substituted aralkyls (non-cationic moieties);

R¹ and R² are hydrogen atoms;

R^c is NH₂ group; and

n = 3.

With regard to the species election, claims 13 and 33 are generic. In addition, claims 14-17, 21, 25-29 and 34-37 are readable on the elected species.

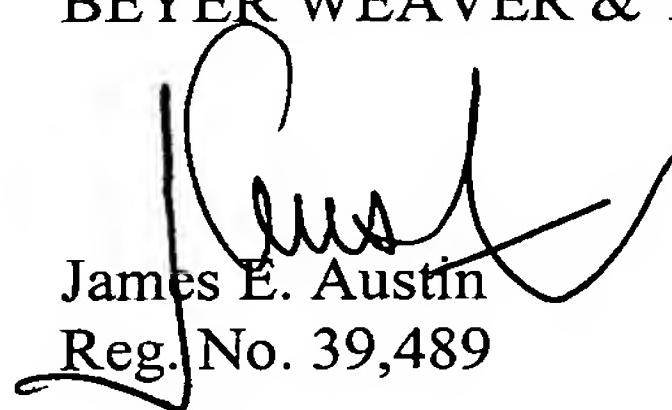
The Applicants respectfully note that even if particular peptoids within the elected species were used as transfecting agents, this fact would not teach or suggest screening a diverse library of *unknown* peptoids falling within the scope of formulas I and II.

It is understood that upon allowance of a generic claim, Applicants will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim.

CONCLUSION

Applicants herein elected a species presented in Figure 3 of the application. It is understood that the elected species is a simplified illustration of a combinatorial library suitable for identification of transfecting agents. Applicants believe that all pending claims are allowable in their present form. Since Applicants have fully and completely responded to the Office Action and have made the required election, a Notice of Allowance is respectfully requested. Please feel free to contact the undersigned at the number provided below if there are any questions, concerns, or remaining issues.

Respectfully submitted,
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